

U. S. F. Comm.
Records
Nos 1050-1077
Chesapeake
Bay.
1882.

ORIGINAL LOG BOOK OF THE "FISH HAWK"

UNITED STATES FISH COMMISSION

STATION NUMBERS

Numbers, 1050 to 1077

Copy

Dredging by
U. S. F. C. Ste.
Fish Hawk
in Chesapeake Bay.
Feby. & March. 1882.

TEMPERATURE RECORD.

Instrument used, Oyster dredge
Current number of observation, 1050.

Current number of observation, 1050.

Date, Feby. 27. 1882

Locality, Chesapeake Bay.

Bearings, Pt. No Pt

N. N. E. 1½ miles

Time of day, 2 P.M.; of tide,

State of sky,

Temperature of air, 50.

" surface of water, 41.

at depth of fathoms,

" of bottom,

Depth, in fathoms, 3 1/2

Nature of bottom, *Mud. & s. fr.*

Direction of surface current.

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel.

To what service

Name and rank of comma

Name and position of observer,

REMARKS.

✓ Traveling because of population

✓ Traveling because of environmental factors

✓ Travel because of economy

✓ Travel because of leisure

Travel because of personal interests

LEWISVILLE SECOND

TEMPERATURE RECORD.

Instrument used, *Oyster dredge*
Current number of observation, *1051*,
Date, *Feby. 27. 1882*
Locality, *Chesapeake Bay*
Bearings, *Rt. 070. Rt*
St. by E. 1 mile
Time of day, *2.15 P.M. off tide.*
State of sky,
Temperature of air, *50.*
" surface of water, *41.*
" at depth of fathoms,
" of bottom, *40.*
Depth, in fathoms, *2*
Nature of bottom, *mud, grass.*
Direction of surface current,
Force of surface current,
Direction of bottom current,
Force of bottom current,
Name of vessel,
To what service attached,
Name and rank of commanding officer,
Name and position of observer,

REMARKS.

about the bottom of stream.

little or none of continuous drift

to most recent drift.

little or none.

little or none evident.

Direction of surface drift.

little or none evident.

Direction of surface drift.

little or none.

LEWESVILLE SECOND

TEMPERATURE RECORD.

Instrument used,

Oyster Dredge

Current number of observation, 1052

Date, Feby. 27, 1882

Locality, Chesapeake Bay

Bearings, Pt. to Pt.

N. W. E. 3/4 mile

Time of day, 2.30 P.M., of tide,

State of sky,

Temperature of air, 50,

" surface of water, 41,

" at depth of fathoms,

" of bottom, 40.

Depth, in fathoms, 134.

Nature of bottom, mud. grass.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Oyster Dredge

Current number of observation,

1053

Date, Feby. 27, 1882

Locality, Chesapeake Bay,

Bearings, Pt. shoal Pt.

N. by E. $1\frac{1}{4}$ miles

Time of day, 2:45 P.M., of tide,

State of sky,

Temperature of air, 50,

" surface of water, 41.

" at depth of fathoms,

" of bottom, 40

Depth, in fathoms, 23/4

Nature of bottom, mud, shr. O.,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

have had *Leptothrix* in patients

had only 10% of *Leptothrix* found

of 1000 cases no *Leptothrix*

found in 1000

found in 1000 cases

1000 of 1000 patients

found in 1000 cases

1000 of 1000 patients

found in 1000

of 1000

of 1000 of 1000

1000 of 1000

found in 1000

found in 1000

1000 of 1000

LEPTOTHRIX SECOND

TEMPERATURE RECORD.

Instrument used,

Oyster dredge

Current number of observation, 1054

Date, Feby, 27, 1882

Locality, Chesapeake Bay

Bearings, Pt Ato Pt

N. by E. 1 1/4 miles

Time of day, 2.50 P.M. of tide,

State of sky,

Temperature of air, 50.

" surface of water, 41.

" at depth of fathoms,

" of bottom, 40.

Depth, in fathoms, 2 3/4

Nature of bottom, mud, sh. o.,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Dredge

Current number of observation,

1055.

Date,

Feby. 28. 1882

Locality,

Pacuwest River

Bearings,

Brun Pt. N. E. 1/2 mile

Time of day, 10, 4 ^{of tide.}

State of sky,

Temperature of air, 46.

" surface of water, 40.

" at depth of fathoms,

" of bottom,

Depth, in fathoms, 6.

Nature of bottom, Brn. m. sh.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Rake Dredge

Current number of observation, 1056.

Date, Feby. 28. 1882

Locality, Pawtucket River,

Bearings, Green Pt.

N. N. E., $\frac{1}{3}$ mile

Time of day, 10,56; tide,

State of sky,

Temperature of air, 46.

" surface of water, 40

" at depth of fathoms,

" of bottom,

Depth, in fathoms, 6.

Nature of bottom, brown m. sh.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used, Trawl

Current number of observation, 1057.

Date, Feby. 28. 1882

Locality, Chesapeake Bay.

Bearings, South End Barren Isd
Ex S. 1 3/4 miles.

Time of day, 12 m; of tide,

State of sky,

Temperature of air, 49

" surface of water, 40.

" at depth of fathoms,

" of bottom, 40

Depth, in fathoms, 17-20

Nature of bottom, brn. m.

Direction of surface current,

Drift N. N. W. 1/2 m

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used, Trawl

Current number of observation, 1058.

Date, Feby. 28. 1882

Locality, Chesapeake Bay

Bearings, S. End Barren Isd
S. E. x E, 1/2 E, 2 miles

Time of day, 12, 10 ; P.M.

State of sky,

Temperature of air, 49

" surface of water, 40

" at depth of fathoms,

" of bottom, 40.

Depth, in fathoms, 3 - 25.

Nature of bottom, bar. m.

Direction of surface current,

left
Force of surface current, 1/2 m. 1/2 m.

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation. 1059

Date, Feby. 28. 1882

Locality, Chesapeake Bay

Bearings, S. End Barren Id
S. E. 40 E. 2 miles

Time of day, 12, 30 ; of tide

State of sky,

Temperature of air, 49

" surface of water, 40

" at depth of fathoms,

" of bottom, 40,

Depth, in fathoms, 2 3/4 - 2 5

Nature of bottom, brn m

Direction of surface current,

Force of surface current, W. N. W. 3/4 mile

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

1060

Date, Feby. 28, 1882

Locality, Chesapeake Bay.

Bearings, Smith Pt.

S. S. W. 2 miles.

Time of day, 4.20 P.M.; of tide,

State of sky,

Temperature of air, 46,

" surface of water, 41.5

" at depth of fathoms,

" of bottom, 40.5

Depth, in fathoms,

7

Nature of bottom, brn. m. sh.

Direction of surface current,

W. N. E. Force of surface current, S. E. by S. 3/8 mile

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Dredge

Current number of observation,

1061.

Date, Mar. 2, 1882

Locality, Chesapeake Bay

Bearings, Smith Point Light &c.
S. by E. $\frac{1}{2}$ N. $1\frac{1}{2}$ miles.

Time of day, 11.20 am of tide

State of sky,

Temperature of air, 48.

" surface of water, 41.5

" at depth of fathoms,

" of bottom, 41.5

Depth, in fathoms,

11-16.

Nature of bottom,

bn. m, sh.

Direction of surface current,

Westerly

Force of surface current,

S. $\frac{1}{2}$ m

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

1062

Date,

March 2, 1882

Locality, Chesapeake Bay

Bearings, Smith Pt depth

S. W. $\frac{1}{2}$ S., 144 m

Time of day, 11:40 ~~of tide.~~

State of sky,

Temperature of air, 48.

" surface of water, 41.8

" at depth of fathoms,

" of bottom, 41.5

Depth, in fathoms, 16-9 $\frac{1}{2}$

Nature of bottom, ~~6 m. m. - m.~~

Direction of surface current,

~~Force of surface current.~~ S. x W. 1 m

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Rader Pro. Sg.

Current number of observation. 1063.

Date, Mar. 6, 1882.

Locality, Chesapeake Bay

Bearings, S. Pt. Tangier Id
N. x E. 3/4 E., 2 1/4 m

Time of day, 9.35; of tide,

State of sky,

Temperature of air, 50,

" surface of water, 44

" at depth of fathoms,

" of bottom, 42.

Depth, in fathoms, 10.

Nature of bottom, br. m. sh.

Direction of surface current,

Force of surface current, N. E. x E. 1/2 m

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Rake probe

Current number of observation, 1064,

Date, Mar. 6, 1882

Locality, Chesapeake Bay

Bearings, S. Pt. Tangier Id.

N. N. W. 1 mile

Time of day, 2.17 P.M.; off tide.

State of sky,

Temperature of air, 50.

" surface of water, 42

" at depth of fathoms,

" of bottom, 42

Depth, in fathoms, 20. - 9 1/2

Nature of bottom, on m sh

Direction of surface current,

Force of surface current, N. E. & E. 1/2

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used, Teawl
Current number of observation, 1065.
Date, Mar. 6, 1882
Locality, Chesapeake Bay
Bearings, Chesapeake Sh.
E. & W. 2 miles
Time of day, 9 a.m. of tide,
State of sky,
Temperature of air, 56.
" surface of water, 45.
" at depth of fathoms,
" of bottom, 46.5
Depth, in fathoms, 25 - 12
Nature of bottom, Sand,
Direction of surface current,
Force of surface current,
Direction of bottom current,
Force of bottom current,
Name of vessel,
To what service attached,
Name and rank of commanding officer,
Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used, *Trawl*
Current number of observation, *1066*
Date, *Mar. 6, 1882*
Locality, *Chesapeake Bay*
Bearings, *Chesapeake Lt.*
E x S. 3 miles S.
Time of day, *9.20 A.M. of tide*
State of sky,
Temperature of air, *56.*
" surface of water, *45.*
" at depth of fathoms,
" of bottom, *45.*
Depth, in fathoms, *12 - 25 1/2*
Nature of bottom, *Sand*
Direction of surface current,
Force of surface current,
Direction of bottom current,
Force of bottom current,
Name of vessel,
To what service attached,
Name and rank of commanding officer,
Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used, Tauro
Current number of observation, 1067.
Date, Mar. 6, 1882
Locality, Chesapeake Bay,
Bearings, Chesapeake Bay,
S. E. x E. 1/4 E. 3 miles.
Time of day, 9.40 A.M.
State of sky,
Temperature of air, 56.
" surface of water, 45.
" at depth of fathoms,
" of bottom, 47
Depth, in fathoms, 12-20.
Nature of bottom, Bottom
Direction of surface current,
Force of surface current,
Direction of bottom current,
Force of bottom current,
Name of vessel,
To what service attached,
Name and rank of commanding officer,
Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used, Trawl
Current number of observation, 1068.
Date, Mar. 11, 1882
Locality, Chesapeake Bay.
Bearings, Kent Id. Thos Pt light
L. S. W. 14° W. 2 miles
Time of day, 9.00 a.m.
State of sky,
Temperature of air, 49
" surface of water, 42
" at depth of fathoms,
" of bottom, 41.
Depth, in fathoms, 14-9
Nature of bottom, bk. m.
Direction of surface current,
Force of surface current,
Direction of bottom current,
Force of bottom current,
Name of vessel,
To what service attached,
Name and rank of commanding officer,
Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used, Trawl
Current number of observation, 1069
Date, Mar. 11, 1882
Locality, Chesapeake Bay
Bearings, Off Kent Isd. Thos Pt Right
S. W. 3/4 W., 244 m.
Time of day, 10. 20; ~~of~~ ~~noon~~
State of sky, /
Temperature of air, 57.
" surface of water, 42
" at depth of fathoms,
" of bottom, 40
Depth, in fathoms, 18
Nature of bottom, broken
Direction of surface current,
Force of surface current,
Direction of bottom current,
Force of bottom current,
Name of vessel,
To what service attached,
Name and rank of commanding officer,
Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation.

1070.

Date, Mar. 11, 1882

Locality, Chesapeake Bay,

Off Kent Is., Thos. 12th Lt.

60. x 3. 2 miles

Time of day, 10.45; of tide,

State of sky,

Temperature of air, 45°.

" surface of water, 42

" at depth of fathoms,

" of bottom, 42

Depth, in fathoms, 15-10

Nature of bottom, 6/2 m

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used, Trawl
Current number of observation, 1071,
Date, Mar. 11, 1882
Locality, Chesapeake Bay
Bearings, Off Kent Is. Ches Pt. L.
W. N. W., $1\frac{1}{2}$ W., 244 m.
Time of day, 11.22; of tide, low
State of sky,
Temperature of air, 49,
" surface of water, 42,
" at depth of fathoms,
" of bottom, 40,
Depth, in fathoms, 14-13,
Nature of bottom, bottom,
Direction of surface current,
Force of surface current,
Direction of bottom current,
Force of bottom current,
Name of vessel,
To what service attached,
Name and rank of commanding officer,
Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Rake dredge

Current number of observation,

1072

Date, Mar 11, 1882

Locality, Chesapeake Bay
Off, Kent Isd. Thos Pt. Ld.,
N. W. 2 1/4 miles

Time of day, 12, M; of tide,

State of sky,

Temperature of air, 50.

" surface of water, 42

" at depth of fathoms,

" of bottom, 42

Depth, in fathoms, 16.

Nature of bottom, 6k. m.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Rankin's wedge.

Current number of observation, 1073.

Date, Mar. 11, 1882

Locality, Chesapeake Bay

Off Kent Id. Thos Pt Lt.

W. W. x N. 2 1/2 m

Time of day, 12.25; of tide,

State of sky,

Temperature of air, 57.

" surface of water, 47.

" at depth of fathoms,

" of bottom, 42.

Depth, in fathoms, 13.

Nature of bottom, broken sh.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used.

Tawie

Current number of observation.

1074

Date, Mar. 11, 1882

Locality. Chesapeake Bay
off Kent Is., Maryland
Bearings,

st. x w. 4260, 4 3/4 m

Time of day, 110 P.M. of tide.

State of sky,

Temperature of air,

" surface of water, 43

at depth of fathoms.

" of bottom. 41.

Depth, in fathoms, 18-11.

Nature of bottom, *broken*

Direction of surface current

Force of surface current.

Direction of bottom current.

Force of bottom current.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer:

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Trank

Current number of observation, 1075.

Date, Mar. 13, 1885.

Locality, Chesapeake Bay

Bearings, Sandy Pt, light,
at. & W. $1\frac{1}{4}$ W., $3\frac{1}{2}$ m.

Time of day, 9, 45^o; of ~~noon~~.

State of sky,

Temperature of air, 45,

" surface of water, 43,

" at depth of fathoms,

" of bottom, 40.

Depth, in fathoms, 14-11.

Nature of bottom, *mixed*.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

i

TEMPERATURE RECORD.

Instrument used,

Fawcett

Current number of observation,

1076.

Date,

Mar. 13, 1882

Locality,

Chesapeake Bay

Bearings.

Sandy Pt. light

St. x W. 44 W. ~~10~~

Time of day,

10.15 ~~of tide~~

State of sky,

Temperature of air,

45.

" surface of water,

43.

" at depth of

fathoms,

" of bottom,

40.

Depth, in fathoms,

15.

Nature of bottom,

mixed.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer.

Name and position of observer.

REMARKS.

TEMPERATURE RECORD.

Drawn

Instrument used,

Current number of observation, 1077.

Date, May, 13, 1872.

Locality, Chesapeake Bay

Bearings, Sandy Pt depth,
A. W. 44° C. 2 1/4 miles

Time of day, 10.55 a.m. at tide.

State of sky,

Temperature of air, 49

" surface of water, 43

" at depth of fathoms,

" of bottom, 40

Depth, in fathoms, 11-12

Nature of bottom, mud

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide.

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide.

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Current number of observation.

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom.

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Current number of observation.

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom.

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current.

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer.

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

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Temperature of air,

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Depth, in fathoms,

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Direction of surface current.

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Force of bottom current,

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To what service attached,

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Name and position of observer,

REMARKS.

None of the species of *Artemesia*

None of the many of *Asplenium* species

10 major species recorded

None of *Asplenium*

None of *Asplenium* species

None of the many species

None of the many species

None of the many species

None of the species

None of the species

None of the species

None of the many species

None of the many species

None of the many species

None of the many species

TEMPERATURE RECORD.

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Bearings,

Time of day, ; of tide,

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REMARKS.

please see Logbook of Specimens

same long shape of conical teeth

as from Leptostomus?

2000 ft. depth

longer & deeper than

1000-1200 ft. bottom

longer & deeper than

1000-1200 ft. bottom

longer & deeper

longer & deeper

as Leptostomus

as Leptostomus as Leptostomus

longer & deeper

longer & deeper than

longer & deeper

longer & deeper than

longer & deeper

longer & deeper

longer

longer & deeper than

longer & deeper

LEMBREVILLE RECORD